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WHAT IS CLAIMED IS:

1. A semiconductor laser device comprising:  
a semiconductor laser chip having an emission  
facet for emitting a laser beam; and  
5 a sub-mount having a first surface on which the  
semiconductor laser chip is provided, and at least one  
second surface vertical to the first surface,  
wherein one of the second surface, which is  
arranged in line with the emission facet of the  
10 semiconductor chip, is inclined at an angle of 3 to  
30 degrees to the emission facet, and  
the second surface which is inclined reflects  
reflection light of a sub beam diffracted from the  
laser beam emitted from the semiconductor laser chip.
- 15 2. The device according to claim 1, wherein the  
angle of the second surface which is inclined is set to  
3 to 15 degrees to the emission facet.
3. The device according to claim 1, wherein a  
plane shape of the sub-mount is a rectangle or square.
- 20 4. The device according to claim 3, wherein a  
plane shape of the sub mount is a parallelogram.
5. The device according to claim 1, wherein the  
semiconductor laser chip is a rectangle or square.
6. The device according to claim 5, wherein the  
25 semiconductor chip has a thickness of 60 to 150  $\mu\text{m}$ .
7. The device according to claim 5, wherein  
material of the sub-mount is one of AlN, SiC, and Si.

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8. The device according to claim 2, wherein a plane shape of the semiconductor laser chip is a rectangle or square, a plane shape of the sub-mount is a rectangle or square, the semiconductor laser chip is provided and rotated at the angle with respect to the sub-mount, the sub-mount is provided on a heatsink, and edges of the semiconductor laser chip are respectively parallel to edges of the heatsink.

9. A semiconductor laser device comprising:  
a semiconductor laser chip having an emission facet for emitting two laser beams; and  
a sub-mount having a first surface on which the semiconductor laser chip is provided, and at least one second surface vertical to the first surface,  
wherein one of the second surface, which is arranged in line with the emission facet of the semiconductor chip, is inclined at an angle of 3 to 30 degrees to the omission facet, and

the second surface which is inclined reflects reflection light of a sub-beam diffracted from the laser beams emitted from the semiconductor laser chip.

10. The device according to claim 9, wherein the semiconductor laser chip emits a first laser beam having a first wavelength and a second laser beam having a second wavelength.

11. The device according to claim 10, wherein the first wavelength band is 780 nm, and the second

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wavelength band is 650 nm.

12. The device according to claim 9, wherein the semiconductor laser chip has first and second electrodes, and the sub-mount has third and fourth electrodes connected with the first and second electrodes.

13. The device according to claim 12, the sub-mount has a slit between the third and fourth electrodes.

14. The device according to claim 9, wherein the angle of the second surface which is inclined is set to 3 to 15 degrees to the emission facet.

15. The device according to claim 9, wherein a plane shape of the sub-mount is a rectangle or square.

16. The device according to claim 15, wherein a plane shape of the sub-mount is a parallelogram.

17. The device according to claim 9, wherein the semiconductor laser chip is a rectangle or square.

18. The device according to claim 17, wherein the semiconductor chip has a thickness of 60 to 150  $\mu\text{m}$ .

19. The device according to claim 16, wherein material of the sub-mount is one of AlN, SiC, and Si.

20. The device according to claim 9, wherein a plane shape of the semiconductor laser chip is a rectangle or square, a plane shape of the sub-mount is a rectangle or square, the semiconductor laser chip is provided and rotated at an angle of 3 to 30 degrees

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with respect to the sub-mount, the sub-mount is provided on a heatsink, and edges of the semiconductor laser chip are respectively parallel to edges of the heatsink.

5           21. An optical pickup apparatus comprising:  
a semiconductor laser device for emitting a laser beam;

10           a diffraction grating for diffracting the laser beam from the semiconductor laser device and for outputting the laser beam and a sub-beam;

          a collimator lens for making the laser beam and the sub-beam from the diffraction grating be parallel to each other;

15           a half-mirror which allows the laser beam and the sub-beam from the collimator lens to pass;

          an objective lens for guiding the laser beam and the sub-beam from the half-mirror to an optical disk; and

20           a light receive element for receiving reflection light from the optical disk through the objective lens and the half-mirror and for converting the reflection light received into an electric signal, wherein

25           the semiconductor laser device comprises a semiconductor laser chip having an emission facet for emitting a laser beam, and a sub-mount having a first surface on which the semiconductor laser chip is provided, and at least one second surface vertical to

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the first surface,

one of the second surface, which is arranged in line with the emission facet of the semiconductor chip, is inclined at an angle of 3 to 30 degrees to the emission facet, and

the second surface which is inclined reflects reflection light of a sub-beam diffracted from the laser beam emitted from the semiconductor laser chip.

22. The apparatus according to claim 21, wherein the semiconductor laser chip emits a first laser beam having a first wavelength and a second laser beam having a second wavelength.

23. The apparatus according to claim 22, wherein the first wavelength band is 780 nm, and the second wavelength band is 650 nm.

24. The apparatus according to claim 21, wherein the semiconductor laser chip has first and second electrodes, and the sub-mount has third and fourth electrodes connected with the first and second electrodes.

25. The apparatus according to claim 24, the sub-mount has a slit between the third and fourth electrodes.

26. The apparatus according to claim 21, wherein the angle of the second surface which is inclined is set to 3 to 15 degrees to the emission facet.

27. The apparatus according to claim 21, wherein a

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plane shape of the sub-mount is a rectangle or square.

28. The apparatus according to claim 27, wherein a plane shape of the sub-mount is a parallelogram.

5 29. A method for manufacturing a semiconductor device, comprising:

10 a step of dicing a substrate in parallel along a first dicing line, and of dicing the substrate in parallel along a second dicing line inclined at  $90+\theta$  degrees (where  $\theta$  is 3 to 30 degrees) to the first dicing line, to form a plurality of sub-mounts each having an inclined surface; and

15 a step of mounting a semiconductor laser chip having an emission facet for emitting a laser beam, onto an upper surface of each of the sub-mounts, such that the inclined surface is positioned just below the emission facet.

30. A method for manufacturing a semiconductor device, comprising:

20 a step of forming a plurality of slits in parallel on a surface of a substrate;

25 a step of dicing the substrate along a first dicing line parallel to the slits, and of dicing the substrate in parallel along a second dicing line inclined at  $90+\theta$  degrees (where  $\theta$  is 3 to 30 degrees) to the first dicing line, to form a plurality of sub-mounts each having an inclined surface; and

a step of mounting a semiconductor laser chip

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having an emission facet for emitting two laser beams, onto an upper surface of each of the sub-mounts, such that the inclined surface is positioned just below the emission facet.

- 5        31. The method according to claim 30, wherein the plurality of slits are formed by using one of cutting, etching, lift-off, YAG laser cutting, and a metal mask.

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